

# Library and Sustainability at Macalester College



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## Summary

This report is part of a class project for the class “Sustainability and Campus” and will provide an overview of the sustainability effort in the DeWitt Wallace Library at Macalester College. We will first evaluate the current main sustainability projects in the DeWitt Wallace Library including Onesies and PaperCut Public. Secondly, we will give information on different communities and frameworks that have been developed for library sustainability across the United States. Finally, based on the national framework and the current situation in DeWitt Wallace Library, we will give our recommendations of some further sustainability efforts that can be practiced in library.

## Introduction

Macalester College has committed to promote sustainability in different ways around the campus. As an institution, Macalester has set the goals of Carbon Neutral by 2025, Zero Waste by 2020 and Real Food by 2020. Among them, Zero Waste by 2020 requires the school to divert 90 percent of waste from landfill and incinerators.<sup>1</sup>

The library, as an integral part of the campus, has also been practicing sustainability in many ways. In the 2014-2015 academic year, Macalester Library owned 411,784 volumes of books or journals and on average there are 13,833 visits to the library per week and 220,860 pieces of paper printed in the library per semester.<sup>2</sup> This data shows that library is an indispensable part of the daily life of the campus. Thus, the effectiveness of library sustainability practices directly influences whether Macalester the whole campus can reach its sustainability goal.

The current sustainability projects in library can be classified into two categories: paper reduction and energy saving. Acknowledging that energy saving is more related to facilities control and technology updates, which require less students' involvement, we will focus our project on evaluating the paper reduction effort in Macalester Library. Through evaluating the current projects, conducting research on sustainability in other libraries and proposing ways of improvement, we hope to help Macalester DeWitt Wallace Library reach its sustainability goal more effectively.

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<sup>1</sup> "Sustainability Office - Macalester College." *Sustainability Office - Macalester College*. Macalester College, n.d. Web. 25 Apr. 2016.

<sup>2</sup> "A Snapshot of Library Activities,." *By the Numbers: DeWitt Wallace Library, 2012-2013*. Macalester College, n.d. Web. 25 Apr. 2016.

## Current Sustainability Projects and Evaluation

Paper use is a major component of Macalester's Zero Waste by 2020<sup>3</sup> initiative and is central to the library's current sustainability efforts. At the library, the use of paper is the greatest challenge in working towards sustainability. The library incurs paper related costs from books and periodicals as well as student printing. As a result of printing being free at Macalester for students, the amount of printed-paper waste is relatively high, thus making the need to manage it very important. Furthermore, Macalester students also express wishes to cut back on their paper waste while also printing the material that is required for their academic success. In order to balance these conflicting desires, multiple departments, most significantly the library, have undertaken efforts to help students become more sustainable with their paper use.

The library has undertaken a number of smaller projects pertaining to paper use in the past few years including using scratch paper within the offices, using online forms to evaluate student workers, using email instead of paper to notify students of overdue items and hold pick-up notifications, beginning a direct mail waste initiative, and participating in printing awareness events. Additionally, the library promotes the use of the Digital Commons to promote electronic publishing for faculty and students<sup>4</sup>, which works to reduce paper waste among academic publications. Lastly, the library regularly sends unwanted books to Better World Books<sup>5</sup>, which is an organization that promotes literacy initiatives worldwide. Currently, members of MCSG and other campus staff members are working on a project to create a "Book Bank" to encourage students to donate their textbooks at the end of the year to Better World Books. These smaller

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<sup>3</sup>"Zero Waste by 2020 - Sustainability Office - Macalester College." *Zero Waste by 2020 - Sustainability Office - Macalester College*. Macalester College, n.d. Web. 25 Apr. 2016.

<sup>4</sup>"DigitalCommons@Macalester College." *DigitalCommonsMacalester College*. Macalester College, n.d. Web. 25 Apr. 2016. <<http://digitalcommons.macalester.edu/>>.

<sup>5</sup>"Better World Books." *Better World Books*. N.p., n.d. Web. 25 Apr. 2016. <<http://www.betterworldbooks.com/>>.

projects are supplemented by two larger projects, the Onesie notebooks and the Papercut printing counters that the library is currently running, which have the potential to make a real difference in printing at Macalester.

#### A. Onesies Notebooks

##### a. Project Description

One prominent sustainability project that the library currently oversees is the production of Onesies notebooks. Onesie notebooks are notebooks made from discarded single-side clean paper. For the past two years all incoming first year students have received a onesie notebook at the beginning of the year. The notebooks contain tips for smarter printing that are aimed at increasing awareness and introducing students to sustainability practices at Macalester. Onesie notebooks are available for purchase at the Circulation Desk in the library and all of the proceeds go back to fund the production. Full size notebooks are available for one dollar while half size notebooks are available for 50 cents.

The paper that is used to produce the Onesie notebooks comes from recycled paper from all around Macalester's campus. Around campus there are plastic bins labeled as Onesie collection bins that students, faculty, and staff can put recycled, single side paper into. Currently, there is one big bin in every building with 30 smaller bins scattered throughout academic departments. A main hub for the collection of Onesie sheets is in the library itself next to the printing stations on the first floor. Library students workers and workers from other departments check the bins on an approximately monthly basis.

Once the paper has been collected throughout campus, student workers must sort through it to make sure that no confidential information is printed on the pages and that they are all clean single sided pages. Once this has been done the paper is taken to Document

Services to be produced. The Onesie notebooks are sold for the same amount that it takes to produce them, meaning that no profit is made by the library or any other department through the program. Instead the Onesie project is focused on engaging students with sustainability on a campus level by increasing awareness about paper use throughout campus. The program has thus far been successful and production for next year's incoming first year students is already underway.

In conversation with library staff member Jacki Betsworth and student employees it is clear that there are not many present issues with the Onesie project. Small issues include student confusion about what paper can be donated to the Onesie project and how best to collect the paper from various academic departments. Student workers across departments are currently working on improving the system to collect paper by instituting more uniform bins throughout department. However, working towards achieving greater understanding among Macalester students about the Onesie project will be incredibly important to its continued success.

#### b. Evaluation

The Onesie notebook initiative successfully intertwines sustainability education and the implementation of a project that has real impacts on paper use at Macalester. The program is visible to almost all Macalester students because of the distribution of the notebooks among first years and the availability of the notebooks for purchase in the library for all students, faculty, and staff. Therefore, the majority of Macalester students is aware of the program and is engaged, or at least cognizant, of printing and paper issues at their school, specifically in their library. This recognition of sustainability in terms of paper use is very important because Mrs. Betsworth, a staff member in the library, noted that paper use is the main sustainability priority of the library

going forward. Along with other programs, the library is engaging students with the amount of paper that they print, and waste, by providing a visual representation of it through the notebooks. The Onesie project is capable of educating a large amount of Macalester students on how they can become more sustainable students, right at their computers.

### c. Recommendations

We recommend that in order to increase the impacts of the relatively new Onesie notebook project, the library staff and student workers should increase the visibility of the project. This would include increasing the advertisement of the Onesie notebooks to be sold in order to reach a larger amount of students. Furthermore, creating a visual such as a poster to explain the Onesie project and the motivations and goals of the project would do well to improve the student's knowledge and awareness about the importance of printing issues at Macalester's library. Further efforts to encourage students to donate their one sided paper to the Onesie collection bins is another way to increase visibility of the project among students.

## B. PaperCut Public

### a. Project Description

Paper has always been the one of the biggest issue in Library. At Macalester, the Dewitt Wallace Library, collaborating with the Sustainability Office, Macalester Student Government (MCSG), Student Affairs and ITS, implemented the PaperCut program, aiming to wipeout the wasteful printing around the campus, lessen the environmental impact by reducing printing waste and raise printing awareness by presenting real data to students. This project also echoes the sustainability Zero Waste by 2020 program. (500 Sheets Balance FQA)

The program started in the fall semester of 2015 after faculty members from the departments listed above conducted detailed research on the similar programs in other



institutions. From the research, faculty members found that there are three most common printing management models: non-charging printing, all-charging printing, and Soft Quota. Considering the printing situation at Mac, staff has decided to adopt the current Soft Quota model, which grants students a certain amount of people each semester, thus encouraging students to meet the goal, but not charging to exceeding it.

The specific balance number was decided by staffs after gathering the data, the faculty group set the limit of 500 pages balance per student per semester by referring to the printing data from past years. According to the data, on average, students printed 1032 pages in the 2014-2015 academic year. (500 Sheets Balance FQA) So setting the 500 limits for each semester would allow students printing for necessary academic need but also encourage be aware of avoiding unnecessary printing, like printing textbook. Students printing balance was showed in the PaperCut pop-up. This visual reminder effectively helps students be aware of the amount they have printed.

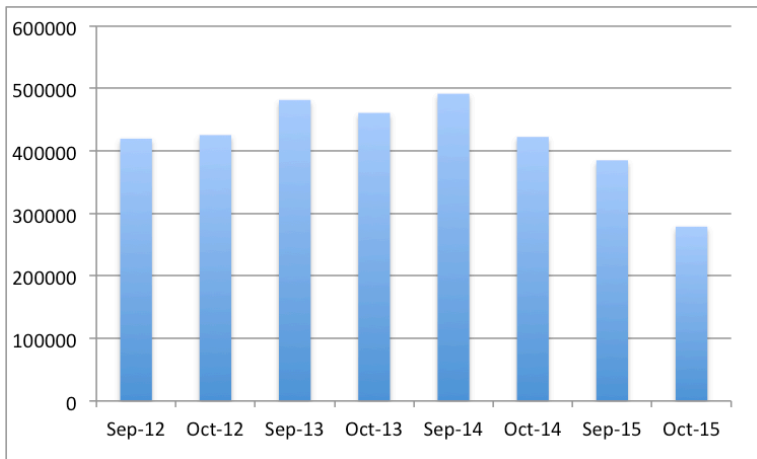
#### b. Evaluation

“Since the first implementation of PaperCut program, we have achieved a 30% reduction last year,” said Rachel Weaver, the Assistant Help Desk Manager at Macalester. PaperCut has been successfully raise the printing awareness around the campus. We were able to access and analysis the printing data collected from the campus printing system. The pattern we found out from the data also verifies the effectiveness of the PaperCut program.

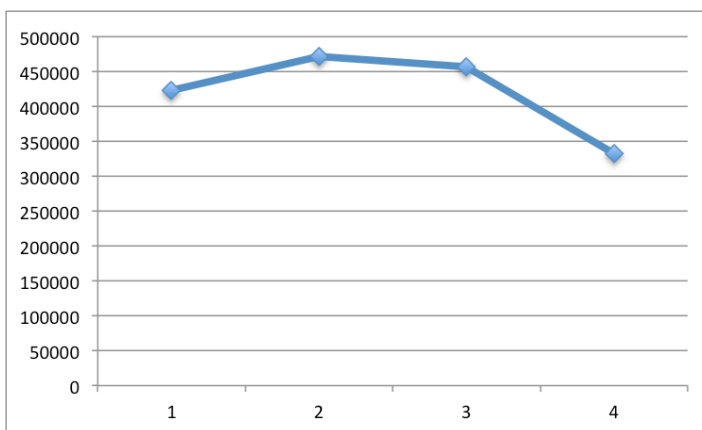
Chart 1:

	<b>Library</b>	<b>Public Labs</b>	<b>Academic Labs</b>	<b>Total</b>
Sep-12	327464	90388	1915	419767
Oct-12	291951	129331	4195	425477
Sep-13	330698	141507	9425	481630
Oct-13	293131	144276	23553	460960
Sep-14	346743	131390	13443	491576
Oct-14	276417	128709	17431	422557
Sep-15	284133	87741	13209	385083
Oct-15	231554	39398	7974	278926

Graph 1-1:



Graph 1-2: The Average print amount of Sep and Oct from 2012-1015



Since the data was only updated up to October 2015, we can only choose the data from September and October to analysis the effectiveness of PaperCut, which was first implemented in September 2015. There is three places students can print on Campus: Library, Public Labs and

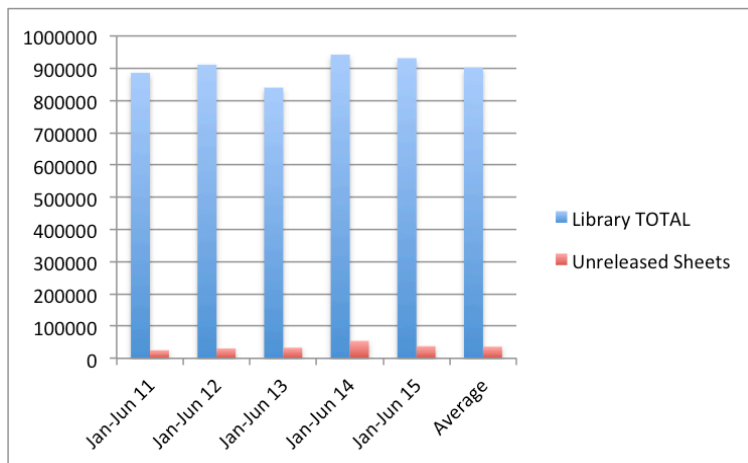
Academic Labs. Students may choose a certain location based on the convenience. So, in order to eliminate the influence of the choices of printing places, we chose to graph the total amount printed by students in September and October year by year from 2012-2015, in which the data from 2015 represent how students behave after the implementation of PaperCut Program.

From graph 1-1, 1-2, we can see a clear drop of number of pages printed since September 2015, compared to the earlier years.

Chart 2:

	<b>Library TOTAL</b>	<b>Unreleased Sheets</b>	<b>percentage</b>
Jan-Jun 11	886072	25182	0.028419812
Jan-Jun 12	911232	30826	0.033828926
Jan-Jun 13	839937	33254	0.039591065
Jan-Jun 14	942311	54260	0.057581839
Jan-Jun 15	931322	37780	0.040565991
Average	902174.8	36260.4	0.039997527

Graph 2:



Another fact we observed from the data is the influence of print releasing system. From the chart we can notice that 4% of unnecessary printing tasks was saved from the print releasing system, which means averagely 36000 piece of paper has been saved each semester. The print

releasing system greatly reduces the unnecessary paper waste created by mis-click and repeated click.

### c. Recommendations

From analyzing the data, we can conclude that the PaperCut system has already been very effective. This result gives us two inspirations on further sustainability practice:

- Visual reminders can greatly increase people's sustainability awareness.
- It is helpful for people to know what they as individual can do to contribute. To raise awareness in individual level is better than general advertising in what human being can do to save our planet because people are more motivated when they feel the solutions are tangible.

So, based on these two observations we took from the evaluation of the PaperCut system, we recommend the creation of more visual signs to remind students about the sustainability efforts in the library and explicitly point out what each individual can do. For example, students sometimes don't know why the PaperCut system and print releasing system exist. For students, if they know why the school implements the systems, they will be better able to understand the programs. Therefore, we would suggest to create some posters about the sustainability effort being undertaken in the library.

## C. Other Sustainability Projects at the Library

### a. Bike Share

The library serves as the main hub for a bike share on campus through which students are able to check out a bike at the library service desk. Along with the subsidization of the metro passes, this is another way the Macalester is providing more environmentally friendly forms of transportation. The bikes in the bike share not only help the environment but also encourage

students to get out in the Twin Cities and engage with nature, whether or not they own a bike or not. Consequently, the bike share program has the potential to be a tool to further educate students about how sustainability manifests in their daily lives as well as being a source of fun and convenience for students.

b. Books/Textbooks

The library works together with Macalester College Student Government (MCSG) in order to operate a textbook reserve program that improves campus sustainability as well as the access to textbooks, which otherwise might be too expensive for some students to afford. This addresses another crucial aspect of sustainability, social justice. This is important because sustainability at Macalester must be inclusive and providing students with an environmentally friendly and universally available service not only helps students in need but also educates them on sustainable academic behaviors. The average Macalester student buys many books each semester for a new round of classes, some of these books may even be new every time. In order to strengthen community and reduce textbook waste, the textbook reserve program institutes a facilitated opportunity for students to share a textbook with their peers, thus being more sustainable.

## Sustainability at Libraries Around the Country

### A. Existing Sustainability Framework for Libraries

Sustainability in libraries is a topic that has been discussed among library organizations and in other libraries around the world. The American Library Association (ALA), a non-profit organization based in the United States that promotes libraries and library education internationally, has recently created the Sustainability Roundtable to discuss and promote sustainable practices at libraries. The Round Table was created to provide a space in which members exchange ideas and opportunities regarding sustainability<sup>6</sup>. The event also provides resources such as curriculum development, exhibits, advocacy and communication in order to provide support to any one of the 62,000 members of the ALA. The event is open to all members to take advantage of and learn more about how they can become more sustainable in the management of their own libraries.

In addition to the Sustainability Roundtable are other events and programs that libraries can utilize in order to learn about sustainable practices and find support. The ALA also has a Task Force on the Environment (TFOE) that was created in 1989. The taskforce was created in the spirit of the 20th anniversary of Earth Day in 1990. Members of the task force include governmental agencies, public interest groups, librarians, publishers, vendors, and members from public libraries, school libraries, and college university libraries. Clearly, the task force encompasses many sectors of society, which it utilizes in order to present a holistic and clear issue-based plan to environmental issues pertaining to many different types of libraries around the United States.

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<sup>6</sup> "Sustainability Round Table." *American Library Association*. American Library Association, n.d. Web. <<http://www.ala.org/sustainrt/home>>.

Another ALA program is the International Sustainable Library Development Interest Group (ISLD). In contrast with the other programs previously discussed, this program is focused primarily on sustainable libraries internationally. The ISLD works predominantly in the developing world, which addresses another key aspect of sustainability, which is social and economic in nature. The ISLD works as a clearinghouse of sustainable community-based projects in many developing areas around the world from Kenya to Thailand and many other places in between. The groups use the expertise and experience of ALA librarians to make contributions and impacts in the field of international library development. Libraries in developing regions have the ability to tap into the resources that ALA provides to aid with their development.

In addition to the support and resources provided by the ALA are a number of other online communities and resources that support sustainable practices in libraries. Blogs and online groups such as Going Green @your Library<sup>7</sup> and Green Libraries<sup>8</sup> provide online information and support to libraries looking to become more sustainable. Both groups have resources for libraries to discover ideas, tools, and techniques to help green libraries, librarians, and the communities that they serve. The Green Libraries website specifically documents the greening of libraries very extensively throughout North America. It also provides great resources for green building tips and contains a list of resources to help people make their libraries more sustainable.

## B. Recommendations for Macalester's Library

We recommend that Macalester's library take advantage in the various programs provided by the ALA as well as other online resources to become more sustainable. We would also recommend that Macalester create an online presence through these already existing

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<sup>7</sup>"Going Green @your Library." *Going Green Your Library*. N.p., n.d. Web. 25 Apr. 2016. <<https://greeningyourlibrary.wordpress.com/>>.

<sup>8</sup>"Green Libraries." - *Home*. N.p., n.d. Web. 25 Apr. 2016. <<http://www.greenlibraries.org/home>>.

communities in order to connect with other libraries and share the success that they have currently been having with programs such as the Onesie notebooks. Connecting with other libraries from around the world would allow Macalester to participate in a community of library sustainability as well as continuously be inspired and motivated to continue to develop more sustainable practices.



## Possible Future Projects

### A. Auspen refillable markers



One possible future project that has been discussed within library staff is the introduction of Auspen refillable whiteboard markers. Every year there are around four hundred million whiteboard markers thrown by schools, universities, and other institutions. Auspen created refillable markers to address this large amount of waste<sup>9</sup>. These pens would offset the current conventional whiteboard markers for staff and student use throughout the library. Auspen markers are made from recyclable materials and are able to be used again and again for years with just refilling the ink. The current cost for Auspen markers is \$33.95 for a pack of 12 markers and \$6.95 for a bottle of ink to refill the markers.

Through discussion with other departments, staff and faculty members, and students the Auspen project does not seem likely to materialize. Throughout Macalester other departments utilize Auspens and student and faculty feedback has been mixed, somewhat negative. Some comments about the ease of use of the markers, the ability to refill the markers, and the life span of the markers have been voiced. This has deterred library workers from fully pursuing the project. The reluctance of students and staff to use the markers would most definitely lessen the

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<sup>9</sup>"About Us." *AusPen USA. Refillable Dry Erase Markers*. N.p., n.d. Web. 25 Apr. 2016. <<http://www.auspen.us/pages/about-us>>.

impact of the markers and make the program less effective overall. As of now, the project does not seem to be a top priority and has been pushed aside to focus on other sustainability issues, primarily paper waste.

#### B. Increasing Visibility of Library Projects

We believe that one of the most important next steps that the library can take in order to become more sustainable and educate Macalester students about sustainability is to engage students more with sustainable practices in the library. As students, we realized that some of the sustainability efforts that have been done like Better World Book donation was not fully noticed by students. And the participation of students will greatly improve the effectiveness of these programs. Thus, we propose the idea of creating visuals such as posters to inform students about the sustainability projects going on in the library as well as what they can do to make their library more sustainable. We believe that placing these visuals in frequently trafficked areas of the library such as on the first floor entrance, by the computers, and around study areas will inform students and engage them with sustainability on their own campus. We have created a few mock-up designs that illustrate the type of visual that we are proposing. The first design is a possible visual to provide students with printing tips and engage them with the idea that printing at the library is a sustainability issue. The next visual illustrates the different projects that they library runs and how they are making Macalester a more sustainable campus.

We feel that the library is doing great work in the field of sustainability, but they need to include students in sharing their progress and the great work that they are doing. We believe that if students are more engaged with sustainability on their campus, and in the library specifically, they will be more motivated to engage in sustainable behaviors at the library such as reducing

their printing, reusing materials, and thinking about how they can be more sustainable in their own lives.

**Printing At Macalester**

At Macalester, around **6,300** reams of paper are printed during a 30-week school year. One ream of paper is **6%** of a tree. Cutting the amount of paper printed by half could save **189** trees per year!

**DID YOU KNOW?**  
**35 % of solid waste in landfills is paper waste.**

**WHAT CAN YOU DO?**  
**USE THESE PRINTING TIPS!**

- Use duplex mode and print multiple pages per sheet
- Take notes electronically using Preview of on a PDF
- Print only pages of a document that you need to. Use the application's print function to print a range of pages instead of an entire document
- Decrease a document's font size, margins, and line spacing to use fewer sheets when printing

Information Courtesy of Macalester College ITS Desk  
(<https://helpdesk.macalester.edu/helpdesk/WebObjects/Helpdesk.woa/wa/FaqActions/view?faqId=375>)

**Figure 1:**  
Poster with  
Printing  
Tips for  
Macalester  
Students



**Figure 2:** Poster for Better World Books Project

## Conclusion

Overall, we were very impressed with how seriously the library is currently taking sustainability issues. It is very encouraging that they have been proactive in addressing the most crucial sustainability issue: paper use and paper waste. The current programs of the Onesie notebooks and the printing counters have been valuable additions to the library and have the potential to continue growing in impact. In terms of future projects we would like to see the library become more interactive with the students through posters but also by soliciting and encouraging student ideas and input into sustainability issues at the library. We believe that the main priority of the library should be to increase the visibility of their projects to the campus community, thereby increasing the positive impacts of their projects.

## Resources

"About Us." *AusPen USA. Refillable Dry Erase Markers*. N.p., n.d. Web. 25 Apr. 2016.

<<http://www.auspen.us/pages/about-us>>.

"Better World Books." *Better World Books*. N.p., n.d. Web. 25 Apr. 2016.

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<<http://www.macalester.edu/sustainability/zero-waste/>>.